Product Review: Thomson Innovation

Executive Summary

Thomson Innovation is a web-based IP intelligence and collaboration platform for searching and analyzing global patent, scientific literature and business information integrated with analytics and workflow tools.

Overview

Thomson Innovation is a web-based IP intelligence and collaboration platform for searching and analyzing global patent, scientific literature and business information integrated with analytics and workflow tools. Thomson Reuters’ predecessor company, Thomson Corporation, had previously acquired companies that produced major indexing and abstracting services and online databases. The acquisitions left Thomson with search platforms for scientific literature, news and business, several overlapping internet patent search services, and databases marketed through STN, Questel and Dialog. Thomson Innovation was created to combine and extend the capabilities of these best-in-class platforms in a new, next-generation IP intelligence and collaboration platform. Since its launch in 2007, Thomson Innovation has been continually enhanced with 15 product releases.

Content Evaluation

Thomson Innovation contains scientific literature from the other Thomson Reuters products: Web of Science, Current Contents, Conference Proceedings and Inspec. An enhanced version of the Web of Knowledge platform was introduced in 2011, and a Thomson Reuters representative has confirmed that the enhancements will be extended to Thomson Innovation in 2012. Business information includes Thomson Reuters databases of company, market, product, news and research data. Patent databases include individual patent databases and the European Patent Office’s INPADOC database, which are widely available from other producers, and Thomson Reuters exclusive Derwent World Patents Index (DWPI), Derwent Patent Citation Index, and LitAlert, as well as its extensive patent document delivery library.

Thomson Innovation provides patent content from the Derwent World Patents Index and other Thomson Reuters online patent databases with content and functionality from its legacy platforms, Delphion, MicroPatent and Aureka. Patents can be searched as individual, full-text documents or with Derwent family records. The core collections include bibliographic information and abstracts from 90
countries or patent-issuing authorities in combination with the full text of patents from 6 countries and facsimiles of patent documents from at least 40 countries. Abstracts are searchable in English and full text documents are searchable in their original language. An additional module, the Asian Translated Collection Entitlement, provides Japanese, Chinese and Korean patent publications in English translation. Subscribers to the Derwent World Patents Index collection can access expanded abstract text and indexing, with English bibliographic data, through the DWPISMEnhanced Patent Data Entitlement. Japanese language records can be retrieved by those whose subscription includes the Japanese Language Collection Entitlement.

Each patent document has its own record, but the records in an answer set can display a family of patent documents, by selecting the Derwent patent family, the European Patent Office’s INPADOC (expanded) patent family, or the application number. Derwent patent family records can be searched alone or in combination with the national patent collections for those with the DWPI entitlement.

Thomson Innovation contains all of the patent information provided by the EPO’s Inpadoc and docDB databases, with coverage of 90 countries that begins at different times. Update frequency varies from authority to authority; US patents are updated twice a week and some countries have ceased to exist. Core Patent Data also includes full text patent documents from 7 authorities – the US, Canada, EPO, Patent Cooperation Treaty, France, Germany, and United Kingdom, and English translations of abstracts from Japanese and Korean applications and granted patents. Derwent World Patents Index titles display, but are not searchable at the Express subscription level. Subscribers can add data from DWPI, which is sold as an additional content module within Thomson Innovation, allowing access to patent family abstracts and indexing within that platform. Users can read Derwent data in the records they retrieve using other search parameters, and can search the Derwent abstract and title with the DWPI content module. Additional subscription entitlements are available for Asian Translated Patent Data, Native Japanese Patent Data, Scientific Literature, the INSPEC database, and a suite of business and news databases.

The Scientific Literature data in Thomson Innovation comprises:

- The Web of Science, combining records from Science Citation Index®, Social Science Citation Index®, and Arts & Humanities Citation Index®;
- Current Contents Connect;
- Conference Proceedings;
- The INSPEC database.

The Business & News data in Thomson Innovation comprises:

- Gale Group Company Intelligence, a directory of corporate information;
- Gale TableBase, a directory of international market information for 90 industries;
- News reports from Thomson Reuters NewsRoom;
- Product information from Gale Group New Product Announcements/Plus (NPA/PLUS);
- Research reports from the Research Centers and Services Directory.
Bibliographic records for patents cover a single patent number with the original title and the expanded Derwent title, the original abstract, the abstract of the basic patent in the Derwent family, the text of an exemplary claim and the IPC, US, ECLA and Japanese patent classification codes. The record can be expanded to show a list of all patent family members in the Derwent patent family or the more comprehensive INPADOC patent family with publication dates, and a PDF link that takes the user to a copy of the patent document when one exists in the Thomson Reuters document delivery collection or a form for ordering a copy of the patent for an additional cost specified by the subscriber’s contract. For documents in the translated Asian patent collections, one can toggle between English and the native language to the translation. A pulldown menu offers machine translations into 10 languages, but not all language combinations work for all documents.

All of the information available for the patent from the various Thomson Reuters patent databases can be viewed by clicking on an expansion box. These include:

- The text of all claims and the full description text. This text is not available for all patents in the database. When available, the patent text is displayed in the language of the patent document;
- Derwent Manual Codes, Chemistry Resource Numbers, Registry Numbers, Plasdoc Punch Codes, Key Serial Codes and Enhanced Polymer Indexing codes, and Chemical Fragment Codes. The polymer and chemical indexing codes can be used to create search strategies for use on STN, Questel or Dialog. The search algorithm of Thomson Innovation is not able to handle the complex Boolean logic needed to search with the full capabilities of the coding;
- INPADOC Legal Status records for the patent. A link is available in the individual patent records for the legal status of all members of the INPADOC family for which legal status information is available;
- Patent status information from national patent registers, where that information is available, including:
  - A link to the European Patent Register record labeled “Procedural Status”, viewable in English, French or German, and information provided by the EPO for inclusion in European Patent databases;
  - Patent status information from the Japanese Patent Office registry, viewable in Japanese;
  - Patent status information from the Canadian Intellectual Property office;
  - Patent assignment information from the USPTO Assignment database;
  - Patent litigation information from the US District Courts, such as records from the LitAlert database;
- Cited and citing patents and cited non-patent documents. Expanded bibliographic records with abstracts are available for non-patent documents cited in patents. Cited and citing references are taken from the Derwent Patent Citation Index, which covers the Derwent patent family, and are not limited to an individual patent.
- A PDF file of the patent document;
- A mosaic display of all drawing pages in the document;
- A link that generates a graph of citations;
User Interface and Searchability

Thomson Innovation is designed to be searched by both patent information specialists and end-user searchers, but most of the system’s unique features require advanced skills. A one line Quick Search query input field allows novices to search using a minimum of options. There are Fielded search screens for searching patents, scientific literature and business information/news, with the searchable fields tailored to the module’s content. The patent and scientific literature modules also have an Expert search screen, which allows the searcher to use the system’s search syntax, including Boolean logic, proximity operators and numerical ranges. Like other fee-based internet patent search engines, e.g., Minesoft’s Patbase, LexisNexis’s Total Patent, and Questel’s orbit.com, Thomson Innovation contains both full text patent documents and the bibliographic and patent status records created by the European Patent Office (EPO), and uses a search interface with input fields for information such as keywords, patent or application numbers, inventors and assignees and patent classification codes, without additional controlled indexing vocabularies and chemical substance indexing. Unlike these other internet patent search engines, Thomson Innovation also has value-added abstract text, expanded patent family titles, and Derwent Classification and Manual Codes.
Separate search screens are provided for Patent, Scientific Literature, Business and Native Japanese Patent searches. A Cross Search screen allows the user to search patents, literature and business information simultaneously, but it does not allow the detailed field searching that is available from the specialized search interfaces, combining Authors, Inventors and Executives in a single “People” field. Thomson Reuters notes that the user can accomplish this through the Search History screen. Unlike most other internet patent search engines, Thomson Innovation allows the user to view and edit the search strategy in a Query Preview box that translates the search terms into the system’s search syntax, which differs somewhat between modules, complete with proximity operators, left and right truncation, and the ability to combine a series of search results with Boolean operators. It has a robust statistical analysis module that produces charts and lists with a few clicks. Users can create alerts, save search strategies, and store patent records in work files that can be annotated and shared with others. Custom fields can be assigned to work files so that patent documents can be linked to the company’s patent department docketing system. Thomson Innovation has one-click machine translation capability and a Corporate Tree dictionary that tracks company name changes and changes in ownership.

The search functionality within Thomson Innovation is based upon the subscription level of the user.

- **The Express** level provides a simplified interface with more limited features and functionality. Searchable fields are limited, and there is no Expert search interface or query previewer. (described below). Patent family and citation lookups are not provided, and users cannot combine queries with Boolean logic. Translation on Demand is not available at this level. It was not covered for this review.

- **The Professional** level provides Thomson Innovation’s full features, but does not provide the Themescape and Text Clustering analytic tools and limits users to 30,000 record result sets.

- **The Analyst** level provides full functionality of all features in Thomson Innovation, including ThemeScape mapping software and Text Clustering. Analyst level subscribers can generate patent result sets of up to 60,000 records.

Five search interfaces are available in Thomson Innovation, each tailored to the content module. Each interface includes a Quick Search box for searching All Content, Patents, Patent numbers, Literature or Business. The user can choose seeing the interfaces in English or Japanese. Additional preferences can be set by each user, even within a corporate environment. The Expert interface allows the user to enter a search using Boolean operators and field qualifiers. A Query Previewer box translates a search entered in a fielded search to the expert syntax, so it can be modified and searched as an Expert search string. A Test Syntax link allows the user to determine whether the search will run properly as entered.

**Patent Search** has fields for all of the bibliographic, classification and text fields in the patent records. Searching for patent assignee names retrieves information from the legal status records, but bibliographic records carry only the original patentee name.
The Number search interface allows searching for publication numbers; output may be placed in a results set, a work file, or an order for patent copies or file histories. A Specialized Search box allows searching only for patent citations, family lookup in either INPADOC or DWPI format, or record updates from a selected date.

Native JP Patent Search has similar features. An English language search is possible, but it retrieves only the limited abstract text.

Business Search allows searching of Company, Market, News and Research collections. Fields are provided for company name, country and industry type as well as text terms.

Literature Search allows searching of text terms and author names, organization name and address, source, and publication year. The NEAR operator is not available in this interface. Extensive citation information is provided in the records, but citation information is not explicitly searchable.

Cross Search allows simultaneous searching of the user’s selection of Patent, Literature and/or Business content sets. Fields are available for text terms, Person, Timeframe, Organization and Location. Double arrow links to the right of patentee, inventor and priority data can be clicked to expand a search to find other records with the same data, a Linked Results Set.
The search interfaces have Help icons to guide the user as to the meaning of the fields and appropriate entry formats, and a description of Search Criteria – Boolean operators and truncation symbols – can be toggled open without leaving the search screen. Explanations are clear and detailed.
Displaying the records retrieved by a search brings up a list of records in a format that can be defined in the user Preferences.

Clicking on the title of a Results Set record brings up the detailed record of the patent, article or business report.

Visualization and Analysis

Each patent record displays tabs for the various functions provided by the system, including a Citation Map tab that leads to options for display cited and/or citing patent references.

**Figure 5: Thomson Innovation Citation Map**

![Thomson Innovation Citation Map](image)

Source: Thomson Innovation from Thomson Reuters

The Analyze tab in the search results page allows the user to generate either a chart representing analyses of the documents in terms of origin or date, assignees, inventors, and technologies as indicated by patent classification codes, a Themescape map, or Text Clustering. Clicking on Charts generates graphs and ordered listings for many of the most frequently used patent statistics. The user can modify the appearance of the charts, but is not able to create additional types of analyses. It is possible to export search results and do more complex analyses using other tools, such as Excel and Vantage Point. Text Clustering generates a list of groups of semantically related terms extracted from the results set, linking each of the records with those terms so that the user can review the search results with more closely related subject matter.
Themescape extracts text terms from a set of patent or literature records and generates a topological map showing the frequency of a term's occurrence as apparent peaks on a geographical island. Records can be viewed by clicking on the peaks. Because many individual patent publications, i.e., published applications and granted patents from one or more countries, disclose an identical invention, visualization is best done by analyzing a set of patent families, which requires a search of the Derwent database records, restricting the search to a single country and document type, or subsearching within the map.
Search scripts can be saved and automatic Alerts can be scheduled. Any of the search steps in the history can be modified or combined with other search steps using simple Boolean logic. Search results can be exported in many different formats, including exporting into Thomson Data Analyzer, Spotfire, BizInt Smart Charts or Vantage Point, which can be used for reporting or further statistical analysis.
Product Strengths and Weaknesses

The Strengths and Weaknesses below pertain to the Professional and Analyst subscription levels.

Strengths:
- Extensive patent coverage in a single interface;
- Scientific literature, business and news searchable along with patents or as alternatives;
- Cross searching for companies and individuals possible through links among patent and non-patent modules;
- English translation of Asian patent text available;
- Machine translation of records available with a single click;
- Availability of Corporate Tree assignee indexing for US and EP patents;
- One-click statistical analysis, with text clustering and Themescape mapping available for expert subscriptions;
- One-click citation search or analysis;
- Extensive linked collection of facsimile patent documents;
- Flexible export options;
- Storage and sharing of patent records in work files;
- Ability to annotate records in personal or shared work files;
- Ability to create custom fields for personal or shared work files;
- Full bibliographic records for non-patent cited references;
- Exported records and linked documents accessible to readers without subscriptions;
- Clear, context-specific help information and collection descriptions.

Weaknesses:
- Complex and expensive subscription options;
- Retrieval of collapsed patent families available only to subscribers with the DWPI document collection modules;
- Advanced features of the search pages may be too complex for inexperienced searchers;
- Command line searching requires familiarity with Thomson Innovation search syntax;
- Statistical analysis tools can provide misleading results in the hands of non-experts;
- Multiplicity of windows generated during a search can be confusing.

Technical Requirements

Thomson Innovation is a web-based product and does not require additional equipment or specialized
software. Thomson Reuters requires that searches be run in a computer running on Microsoft Windows 2000 SP4 or XP SP2 with a minimum of 1.7 GHz CPU and 632 MB of RAM, 125 MB of space on the System drive and 225 MB of available Data drive space plus additional virtual memory for its operating system. It requires a current version of Adobe Acrobat Reader and Internet Explorer 6.0 or 7.0 or Firefox 3.0 or up. All Pop-up blockers must be turned off and JavaScript must be enabled. Apple, Linux, Google Chrome, and UNIX-based operating systems and virtual environments are not supported.

**Service and Support**

The Thomson Innovation interface has detailed help menus, a link to an extensive Search Manual and context-sensitive help links written in clear English sentences. There is a Collections Description link on each of the search forms that gives a complete listing of the databases included in the service and patent countries covered, including the types of patents and years of coverage. The Support link on the website connects the user with the Thomson Reuters Science Training and Technical Support portal, where there is a form for submitting questions, contact information for customer service staff in 9 geographic areas and searchable knowledgebase that provides extensive information about both Thomson Innovation and other Thomson Reuters information services.

**Licensing and Contracting Options**

Thomson Innovation is sold as an annual subscription, and the various modules and entitlements must be selected separately for inclusion in the subscriptions. There are three levels of subscription: Analyst, Pro and Express. All levels include the Core Patent Data. In order to access Derwent World Patents Index data, a subscriber must have selected that as one of her entitlements. Corporate subscriptions with a large number of seats are encouraged, but one-seat annual subscriptions are available. Recipients of reports containing exported records can view the records and hyperlinked patent documents without having to log into the system and at no charge.

**Pricing Model**

Pricing is based on the number of seats and the content/functionality modules the customer selects; those amounts were not disclosed for this review.

**In Outsell’s Opinion**

The use of Thomson Innovation search syntax allows for much more precise searches than is possible with services based on simple internet search engines, but providing separate records for individual patents rather than collecting patents into family records provides more records to review than would be retrieved by some competing patent search services and encourages misleading results from the use of Thomson Innovation’s impressive visualization and analytical tools.

The full capabilities of Thomson Innovation are only available to subscribers who invest in entitlements beyond the Core Patent Data collection and who work in a large enough organization to make use of the collaboration tools. Without the add-ons, Thomson Innovation is competitive with other available patent search platforms, including Thomson Reuters’s legacy patent search services which are still in use.
Thomson Innovation is a superb patent search service with international coverage that is both broad and deep, but it is much more than a patent search service. The creators of Thomson Innovation have succeeded in incorporating the functionality and content of all of their legacy patent search platforms into a single product. Inclusion of non-patent literature and business information makes it possible to perform multi-faceted intellectual property searches on a single platform. Collaboration tools that allow members of a project team to share annotated collections of documents define Thomson Innovation as an information management solution rather than a simple search engine. The Analyst subscription level is particularly attractive to experienced patent searchers familiar with patent law and patent analytics. At any subscription level, integration of clearly worded help messages is a boon to inexperienced searchers and users of shared work files.

Outsell is the only research and advisory firm focused on the publishing and information industries. Our international team provides independent, fact-based analysis and actionable advice about competitors, markets, operational benchmarks, and best practices, so our clients thrive and grow in today’s fast-changing digital and global environment.

Outsell, Inc. is the sole and exclusive owner of all copyrights in this report, including but not limited to the textual and graphic content and the organization, layout, and display of the information and data contained herein. As a user of this report, you acknowledge that you are a licensee of Outsell’s copyrights and that Outsell, Inc. retains title to all Outsell copyrights in the report. You are not permitted to resell, distribute, disseminate, disclose, copy, or otherwise make use of the information contained in this report, except for use within your own work group within your company, unless your organization has obtained a content license from Outsell.

Wherever and whenever the document, or any portion thereof, is disseminated by your organization with the permission of Outsell, Inc., it must bear the following in a prominent location: “© Outsell, Inc. All rights reserved.” To purchase multiple copies and/or licensing rights for this report, please e-mail us at reports@outsellinc.com.